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EXAMINER

GORDON, CARLENE MICHELLE

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/065,314

Applicant(s)

YANNAKOYORGOS ET AL.

Examiner

Carlene Gordon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 1,9-13 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/02/02</u>  | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This action is responsive to application filed October 02, 2002.

Claims 1-21 are pending in the application.

### *Drawings*

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because hand written reference numbers within the figures are difficult to read and drawing objections below. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S.

Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show:

*"the process repeats for another cycle starting at step 202"*

as described in paragraph [0057] in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of

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an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because step 250 of Fig. 2B is not properly described in the specification. It is not described in paragraph [0055] or [0056] to test bug fixes as in Fig. 2B. Also, step 252 is inconsistently described. It is described to test the FDP in the specification in paragraph [0055] and shown different in Fig. 2B. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where

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necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The disclosure is objected to because of the following informalities: in paragraph [0050] "steps" is misspelled as only step "232" is listed, either step "230" is missing.

Appropriate correction is required.

6. The disclosure is objected to because of the following informalities: in paragraph [0043] an "A" should be included to follow "FIG. 2" as the details map to Fig. 2A.

Appropriate correction is required.

### ***Claim Objections***

7. Claims 1, 9, 10, 11, 12, 13, 21 are objected to because of the following informalities: The language of the statement "as functional development

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packages". The term "as" should be replaced since it is used improperly.

Examiner will interpret the term to be "of" for the purpose of examination.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 19 recites the limitation "each of the software code repositories" in line 3 of claim 19. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinman et al. ("Object Technology's ENVY/Developer"), hereafter "**Steinman**".

13. As to claim 1:

Steinman discloses identifying projects for a software development cycle (pg. 2 paragraphs 2-3 "big projects in Smalltalk" pg. 10 under *Who Can Benefit* "... Smalltalk projects" – It is interpreted that these projects are identified.);

initiating concurrent software code development of functional development packages in a software code repository (pg. 2 under *Needs* "Code Sharing and concurrency control"; pg. 9 paragraph 1 "... there will be concurrent development"; pg. 4 under *Hierarchy of Software Components* "software components" – Software components are interpreted as functional development packages. – pg. 4 *Shared Repository*");

approving the functional development packages within the software code repository (pg. 6 paragraph 4 "developer... can release it to its containing component"; pg. 7 paragraph 1 "developer... alone can version" Interpreted as examples of the developer approving the functional development packages in order to release or version.);

identifying omissions or conflicts between the approved functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts");

resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts and managing dependencies"; pg. 11 paragraph 3 "... merging and differencing capability" "merging the diverged code"); and

releasing the functional development packages (pg. 7 paragraph 1 "... owner... release the class" pg. 4 under *Hierarchy of Software Components* "components are... classes").

Steinman does not explicitly disclose initiating concurrent software code development *in at least two software code repositories or approving the code within each of the software code repositories*. Steinman initially discloses the management of concurrent software code development in a shared repository on pg. 4 under *Envy Concepts*. However, it disclosed in the *Postscript* of the disclosure on pg. 13 that a new release of Envy/Developer provides multi-repository support.

One of ordinary skill in the art at the time of the applicant's invention would have been motivated to modify the teachings of Steinman to utilize the enhancement of multi-repository support as taught in the same disclosure. The motivation would have been to expand the initiation of concurrent software code development of Steinman to more than one repository. Furthermore the approval of the functional development packages within each of the repositories would be obvious over the one repository since different development teams would be working based from different repositories as taught on pg. 13. Finally, one of ordinary skill in the art would have been motivated to utilize multi-repository



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support as it is taught on pg. 13 paragraph 3 that this new version of Envy/Developer would address “shortcomings” and will “greatly aid reuse”.

14. As to claim 3:

Rejection of claim 1 is incorporated and further Steinman discloses submitting the functional development packages for system testing. (pg. 5 paragraph 3 “tested versions”).

15. As to claim 4:

Rejection of claim 1 is incorporated and further Steinman discloses regression testing the functional development packages (pg. 2 under *Configuration Management* “regression testing”; also pg. 6).

16. As to claim 5:

Rejection of claim 1 is incorporated and further Steinman discloses submitting the functional development package for manager approval within the respective software code repository (pg. 6 under *User Roles* – pg. 7 paragraph 3 “ ‘owner’ to mean either owner or manager” “developer make changes... they alone can version” “owner can then release the class” – Interpreted as the functional development package being submitted for manager approval.).

17. As to claim 6:

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Rejection of claim 1 is incorporated and further Steinman discloses automatically submitting the functional development packages for code owner approval (“developer make changes... they alone can version” “owner can then release the class” – Interpreted as the functional development package automatically being submitted for code owner approval.).

18. As to claim 7:

Rejection of claim 1 is incorporated and further Steinman discloses applying the functional development packages to a development map within the software code repository (pg. 5 paragraph 3 “... use a configuration map... bringing in the latest integrated and tested versions of... applications”).

19. As to claim 8:

Rejection of claim 1 is incorporated and further Steinman discloses testing the released functional development packages (pg. 5 paragraph 3 “tested versions” – Interpreted as showing that testing of the released functional development packages occurs.).

***Claim Rejections - 35 USC § 102***

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. Claims 13, and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Steinman et al. ("Object Technology's ENVY/Developer"), hereafter "**Steinman**".

22. As to claim 13:

Steinman discloses identifying projects for a software development cycle (pg. 2 paragraphs 2-3 "big projects in Smalltalk" pg. 10 under *Who Can Benefit* "... Smalltalk projects" – It is interpreted that these projects are identified.);

initiating software code development of functional development packages in the single software code repository (pg. 2 under *Needs* "Code Sharing and concurrency control"; pg. 9 paragraph 1 "... there will be concurrent development"; pg. 4 under *Hierarchy of Software Components* "software components" – Software components are interpreted as functional development packages. – pg. 4 "*Shared Repository*");

approving the functional development packages (pg. 6 paragraph 4 "developer... can release it to its containing component"; pg. 7 paragraph 1 "developer... alone can version" - Interpreted as examples of the developer approving the functional development packages in order to release or version.);

automatically identifying omissions or conflicts between the approved functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts");

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resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts and managing dependencies"; pg. 11 paragraph 3 "... merging and differencing capability" "merging the diverged code"); and

releasing the functional development packages (pg. 7 paragraph 1 "... owner... release the class" pg. 4 under *Hierarchy of Software Components* "components are... classes").

23. As to claim 15:

Rejection of claim 13 is incorporated and further Steinman discloses submitting the functional development packages for system testing (pg. 5 paragraph "tested versions").

24. As to claim 16:

Rejection of claim 13 is incorporated and further Steinman discloses regression testing the functional development packages (pg. 2 under *Configuration Management* "regression testing"; also pg. 6).

25. As to claim 17:

Rejection of claim 13 is incorporated and further Steinman discloses submitting the functional development package for manager approval within the respective software code repository (pg. 6 under *User Roles* – pg. 7 paragraph 3 " 'owner' to mean either owner or manager" "developer make changes... they

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alone can version” “owner can then release the class” – Interpreted as the functional development package being submitted for manager approval.).

26. As to claim 18:

Rejection of claim 13 is incorporated and further Steinman discloses automatically submitting the functional development packages for code owner approval (“developer make changes... they alone can version” “owner can then release the class” – Interpreted as the functional development package automatically being submitted for code owner approval.).

27. As to claim 19:

Rejection of claim 13 is incorporated and further Steinman discloses applying the functional development packages to a development map the software code repository (pg. 5 paragraph 3 “... use a configuration map... bringing in the latest integrated and tested versions of... applications”).

28. As to claim 20:

Rejection of claim 13 is incorporated and further Steinman discloses testing the released functional development packages (pg. 5 paragraph 3 “tested versions” – Interpreted as showing that testing of the released functional development packages occurs.).

29. As to claim 21:

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Steinman discloses identifying projects for a SMALLTALK software development cycle (pg. 2 paragraphs 2-3 “big projects in Smalltalk” pg. 10 under *Who Can Benefit* “... Smalltalk projects” – It is interpreted that these projects are identified.);

initiating SMALLTALK software code development of functional development packages in the single software code repository (pg. 2 under *Needs* “Code Sharing and concurrency control”; pg. 9 paragraph 1 “... there will be concurrent development”; pg. 4 under *Hierarchy of Software Components* “software components” – Software components are interpreted as functional development packages. – pg. 4 “*Shared Repository*” pg. 1 Title “... ENVY/Developer”);

submitting the functional development packages for manager approval (pg. 6 under *User Roles* – pg. 7 paragraph 3 “ ‘owner’ to mean either owner or manager” “developer make changes... they alone can version” “owner can then release the class” – Interpreted as the functional development package being submitted for manager approval.);

automatically submitting the functional development packages for code owner approval (“developer make changes... they alone can version” “owner can then release the class” – Interpreted as the functional development package automatically being submitted for code owner approval.);

automatically identifying omissions or conflicts between the functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts”);

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resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts and managing dependencies"; pg. 11 paragraph 3 "... merging and differencing capability" "merging the diverged code");

regression testing the functional development packages; approving the functional development packages (pg. 2 under *Configuration Management* "regression testing"; also pg. 6); and

releasing the functional development packages (pg. 7 paragraph 1 "... owner... release the class" pg. 4 under *Hierarchy of Software Components* "components are... classes").

30. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steinman, and further in view of Banick et al. ("Web Management with Microsoft visual SourceSafe 5.0"), hereafter "**Banick**".

31. As to claim 12:

Steinman discloses identifying projects for a SMALLTALK software development cycle (pg. 2 paragraphs 2-3 "big projects in Smalltalk" pg. 10 under *Who Can Benefit* "... Smalltalk projects" – It is interpreted that these projects are identified.);

initiating concurrent SMALLTALK software code development with ENVY/DEVELOPER of functional development packages in a software code repository (pg. 2 under *Needs* "Code Sharing and concurrency control"; pg. 9

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paragraph 1 "... there will be concurrent development"; pg. 4 under *Hierarchy of Software Components* "software components" – Software components are interpreted as functional development packages. – pg. 4 "*Shared Repository*" pg. 1 Title "... ENVY/Developer");

submitting the functional development packages for manager approval within the respective software code repository (pg. 6 under *User Roles* – pg. 7 paragraph 3 "'owner' to mean either owner or manager" "developer make changes... they alone can version" "owner can then release the class" – Interpreted as the functional development package being submitted for manager approval.);

automatically submitting the functional development packages for code owner approval ("developer make changes... they alone can version" "owner can then release the class" – Interpreted as the functional development package automatically being submitted for code owner approval.);

automatically identifying omissions or conflicts between the functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts");

resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* "Integration... detecting conflicts and managing dependencies"; pg. 11 paragraph 3 "... merging and differencing capability" "merging the diverged code");

regression testing the functional development packages (pg. 2 under *Configuration Management* "regression testing"; also pg. 6);



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approving the functional development packages (pg. 6 paragraph 4 “developer... *can* release it to its containing component”; pg. 7 paragraph 1 “developer... alone can version” Interpreted as examples of the developer approving the functional development packages in order to release or version.); and

releasing the functional development packages (pg. 7 paragraph 1 “... owner... release the class” pg. 4 under *Hierarchy of Software Components* “components are... classes”).

Steinman does not explicitly disclose initiating concurrent software code development in at least two software code repositories at physically distinct locations, or the identification of *omissions*. Steinman initially discloses the management of concurrent software code development in a shared repository on pg. 4 under *Envy Concepts*. However, it disclosed in the *Postscript* of the disclosure on pg. 13 that a new release of Envy/Developer provides multi-repository support.

One of ordinary skill in the art at the time of the applicant's invention would have been motivated to modify the teachings of Steinman to utilize the enhancement of multi-repository support as taught in the same disclosure. The motivation would have been to expand the initiation of concurrent software code development of Steinman to more than one repository, which would be located at physically distinct locations, possibly employing multi-team work as taught on pg. 13 of the disclosure. Furthermore, one of ordinary skill in the art would have been

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motivated to utilize multi-repository support as it is taught on pg. 13 paragraph 3 that this new version of Envy/Developer would address “shortcomings” and will “greatly aid reuse”.

Furthermore, at the time of the applicant's invention, it would have been obvious to one of ordinary skill in the art to modify the teaching of Steinman to include the identification of omissions as taught by Banick (on pg. 121 paragraph 4 “determines what changes exist. If ... didn't change the same line...” –

Omissions are interpreted as what occurs when there are changes or differences between the packages that will eventually be merged; thereby if changes exist, something is left out or omitted, and these omissions are identified.), along with the identification of conflicts between the functional development packages. The motivation would be to resolve the conflicts that exist if have two different versions of the same file in order to merge the files as taught by Steinman and Banick.

32. Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinman as applied to claims 1 and 13 above, and further in view of Underwood (USPN 6,718,535), hereafter “**Underwood**”.

33. As to claim 2:

Rejection of claim 1 is incorporated and further Steinman does not explicitly disclose approving projects for the software development cycle.

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However, Steinman discloses steps of approving throughout the software development cycles for Smalltalk projects.

Underwood discloses approving projects for a software development cycle (paragraph 3125 "Project Plan... approved"; paragraph 3129 "approval of project").

At the time of the invention, one of ordinary skill in the art would have been motivated to combine the analogous art of Steinman and Underwood for managing projects for a software development cycle to include the step of Underwood for approving projects for the software development as disclosed by Steinman. It would have been obvious to include the step of approving the projects for the software development cycle because a step of approval is a control mechanism for the management of a project, which "ensures that all views are considered in making decisions that may impact many areas" in paragraph 3121.

34. As to claim 14:

Rejection of claim 13 is incorporated and further Steinman does not explicitly disclose approving projects for the software development cycle. However, Steinman discloses steps of approving throughout the software development cycles for Smalltalk projects.

Underwood discloses approving projects for a software development cycle (paragraph 3125 "Project Plan... approved"; paragraph 3129 "approval of project").

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At the time of the invention, one of ordinary skill in the art would have been motivated to combine the analogous art of Steinman and Underwood for managing projects for a software development cycle to include the step of Underwood for approving projects for the software development as disclosed by Steinman. It would have been obvious to include the step of approving the projects for the software development cycle because a step of approval is a control mechanism for the management of a project, which "ensures that all views are considered in making decisions that may impact many areas" in paragraph 3121.

35. Claims 9, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinman, and further in view of Chiles et al. (USPN 6,748,582), hereafter "**Chiles**".

36. As to claim 9:

Steinman discloses identifying projects for a software development cycle (pg. 2 paragraphs 2-3 "big projects in Smalltalk" pg. 10 under *Who Can Benefit* "... Smalltalk projects" – It is interpreted that these projects are identified.);

initiating concurrent software code development of functional development packages in a software code repository (pg. 2 under *Needs* "Code Sharing and concurrency control"; pg. 9 paragraph 1 "... there will be concurrent development"; pg. 4 under *Hierarchy of Software Components* "software

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components” – Software components are interpreted as functional development packages. – pg. 4 “*Shared Repository*”);

approving the functional development packages within the software code repository (pg. 6 paragraph 4 “developer... *can* release it to its containing component”; pg. 7 paragraph 1 “developer... alone can version” Interpreted as examples of the developer approving the functional development packages in order to release or version.);

identifying omissions or conflicts between the approved functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts”);

resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts and managing dependencies”; pg. 11 paragraph 3 “... merging and differencing capability” “merging the diverged code”); and

releasing the functional development packages (pg. 7 paragraph 1 “... owner... release the class” pg. 4 under *Hierarchy of Software Components* “components are... classes”).

Steinman does not explicitly disclose initiating concurrent software code development *in at least two software code repositories or approving the code within each of the software code repositories*. Steinman initially discloses the management of concurrent software code development in a shared repository on pg. 4 under *Envy Concepts*. However, it disclosed in the *Postscript* of the disclosure on pg. 13 that a new release of Envy/Developer provides multi-repository support.

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One of ordinary skill in the art at the time of the applicant's invention would have been motivated to modify the teachings of Steinman to utilize the enhancement of multi-repository support as taught in the same disclosure. The motivation would have been to expand the initiation of concurrent software code development of Steinman to more than one repository. Furthermore the approval of the functional development packages within each of the repositories would be obvious over the one repository since different development teams would be working based from different repositories as taught on pg. 13. Finally, one of ordinary skill in the art would have been motivated to utilize multi-repository support as it is taught on pg. 13 paragraph 3 that this new version of Envy/Developer would address "shortcomings" and will "greatly aid reuse".

Steinman, also does not explicitly disclose the computer executable software code transmitted as an information signal, the code for managing software code development, the code comprising code to perform the steps of above.

However, Chiles teaches computer executable software code transmitted as an information signal, the code for managing software code development (col. 10).

At the time of the applicant's invention one of ordinary skill in the art would have been motivated to combine the analogous computer-implemented method of managing development-related tasks of Chiles with the teaching of Steinman. The motivation would have been to use the transmission signal and code of Chiles for implemented the steps taught by Steinman because it is known to one

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or ordinary skill in the art that the steps would have been performed by code as signals and the code executed by a computer as taught by Chiles in col. 10.

37. As to claim 10:

Steinman discloses identifying projects for a software development cycle (pg. 2 paragraphs 2-3 “big projects in Smalltalk” pg. 10 under *Who Can Benefit* “... Smalltalk projects” – It is interpreted that these projects are identified.);

initiating concurrent software code development of functional development packages in a software code repository (pg. 2 under *Needs* “Code Sharing and concurrency control”; pg. 9 paragraph 1 “... there will be concurrent development”; pg. 4 under *Hierarchy of Software Components* “software components” – Software components are interpreted as functional development packages. – pg. 4 “*Shared Repository*”);

approving the functional development packages within the software code repository (pg. 6 paragraph 4 “developer... *can* release it to its containing component”; pg. 7 paragraph 1 “developer... alone can version” Interpreted as examples of the developer approving the functional development packages in order to release or version.);

identifying omissions or conflicts between the approved functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts”);

resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts and managing

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dependencies”; pg. 11 paragraph 3 “... merging and differencing capability” “merging the diverged code”); and

releasing the functional development packages (pg. 7 paragraph 1 “... owner... release the class” pg. 4 under *Hierarchy of Software Components* “components are... classes”).

Steinman does not explicitly disclose initiating concurrent software code development *in at least two software code repositories or approving the code within each of the software code repositories*. Steinman initially discloses the management of concurrent software code development in a shared repository on pg. 4 under *Envy Concepts*. However, it disclosed in the *Postscript* of the disclosure on pg. 13 that a new release of Envy/Developer provides multi-repository support.

One of ordinary skill in the art at the time of the applicant's invention would have been motivated to modify the teachings of Steinman to utilize the enhancement of multi-repository support as taught in the same disclosure. The motivation would have been to expand the initiation of concurrent software code development of Steinman to more than one repository. Furthermore the approval of the functional development packages within each of the repositories would be obvious over the one repository since different development teams would be working based from different repositories as taught on pg. 13. Finally, one of ordinary skill in the art would have been motivated to utilize multi-repository support as it is taught on pg. 13 paragraph 3 that this new version of Envy/Developer would address “shortcomings” and will “greatly aid reuse”.



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Steinman, also does not explicitly disclose a computer-readable medium having computer executable software code stored thereon, the code for managing software code development to perform the steps of above.

However, Chiles teaches computer executable software code transmitted as an information signal, the code for managing software code development (col. 10).

At the time of the applicant's invention one of ordinary skill in the art would have been motivated to combine the analogous computer-implemented method of managing development-related tasks of Chiles with the teaching of Steinman. The motivation would have been to use the computer-readable medium and code of Chiles for implemented the steps taught by Steinman because it is known to one of ordinary skill in the art that the steps would have been performed by code executed by a computer, the code stored on a computer-readable medium as taught by Chiles in col. 10.

38. As to claim 11:

Steinman discloses identifying projects for a software development cycle (pg. 2 paragraphs 2-3 "big projects in Smalltalk" pg. 10 under *Who Can Benefit* "... Smalltalk projects" – It is interpreted that these projects are identified.);

initiating concurrent software code development of functional development packages in a software code repository (pg. 2 under *Needs* "Code Sharing and concurrency control"; pg. 9 paragraph 1 "... there will be concurrent development"; pg. 4 under *Hierarchy of Software Components* "software

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components” – Software components are interpreted as functional development packages. – pg. 4 “*Shared Repository*”);

approving the functional development packages within the software code repository (pg. 6 paragraph 4 “developer... *can* release it to its containing component”; pg. 7 paragraph 1 “developer... alone can version” Interpreted as examples of the developer approving the functional development packages in order to release or version.);

identifying omissions or conflicts between the approved functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts”);

resolving the omissions or conflicts between the functional development packages (pg. 2 under *Needs* “Integration... detecting conflicts and managing dependencies”; pg. 11 paragraph 3 “... merging and differencing capability” “merging the diverged code”); and

releasing the functional development packages (pg. 7 paragraph 1 “... owner... release the class” pg. 4 under *Hierarchy of Software Components* “components are... classes”).

Steinman does not explicitly disclose initiating concurrent software code development *in at least two software code repositories or approving the code within each of the software code repositories*. Steinman initially discloses the management of concurrent software code development in a shared repository on pg. 4 under *Envy Concepts*. However, it disclosed in the *Postscript* of the disclosure on pg. 13 that a new release of Envy/Developer provides multi-repository support.

One of ordinary skill in the art at the time of the applicant's invention would have been motivated to modify the teachings of Steinman to utilize the enhancement of multi-repository support as taught in the same disclosure. The motivation would have been to expand the initiation of concurrent software code development of Steinman to more than one repository. Furthermore the approval of the functional development packages within each of the repositories would be obvious over the one repository since different development teams would be working based from different repositories as taught on pg. 13. Finally, one of ordinary skill in the art would have been motivated to utilize multi-repository support as it is taught on pg. 13 paragraph 3 that this new version of Envy/Developer would address "shortcomings" and will "greatly aid reuse".

Steinman, also does not explicitly disclose a programmed computer for managing software code development, the computer comprising a memory having at least one region for storing computer executable program code; and a processor for executing the program code stored in the memory.

However, Chiles teaches a programmed computer for managing software code development; the computer comprising a memory having at least one region for storing computer executable program code; and a processor for executing the program code stored in the memory (co. 3 lines 9-19 "program modules", "memory", "processor computer"; col. 10).

At the time of the applicant's invention one of ordinary skill in the art would have been motivated to combine the analogous computer-implemented method of managing development-related tasks of Chiles with the teaching of Steinman.

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The motivation would have been to use the processor, memory, and code of Chiles for implemented the steps taught by Steinman because it is known to one of ordinary skill in the art that the steps would have been performed by code executed by a computer by a processor, the code stored in memory as taught by Chiles in cols. 3 and 10.

### ***Conclusion***

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schmidt et al (Patent Publication No. 2002/002630).

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlene Gordon whose telephone number is (571) 272-3722. The examiner can normally be reached on Mon.-Fri. 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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C.G. 10.15.

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